Sustainable Development Law & Policy

Volume 18
Issue 2 *Spring/Summer 2018: Infrastructure in the Context of Human Development*

Article 2

# A New Nuclear Threat: The Tenth Circuit's Shocking Misinterpretation of Preemption Demanding an Amendment to the Price-Anderson Act

Stephanie Fishman
*American University Washington College of Law*

# A New Nuclear Threat: The Tenth Circuit's Shocking Misinterpretation of Preemption Demanding an Amendment to the Price-Anderson Act

*Stephanie Fishman**

## Introduction

Nuclear power will be the key to America's energy future. While we still live in the wake of Soviet-era nuclear stereotypes, the horror of Chernobyl, and face dilemmas on where to store the waste, nuclear energy is the safest, cleanest, and most reliable source.[1] A nuclear energy facility can produce energy at a ninety-one percent efficiency rate, 24/7, with zero carbon emissions. Additionally, nuclear plants run on uranium—an element so energy-rich that a single fuel pellet the size of a fingertip contains as much energy as 17,000 cubic feet of natural gas, 149 gallons of oil, or one ton of coal—saving the United States nearly twelve billion dollars a year in energy costs.[2] Thus, the federal government maintains a strong interest in propping up the nuclear industry, despite the stigmas about nuclear waste.[3]

The Rocky Flats Plant is a nuclear weapons production facility located just sixteen miles from the densely populated city of Denver.[4] Dow Chemical first operated the plant under a contract with the federal government, and then Rockwell International Corporation acquired the contract.[5] However, plant operations halted in 1989 when the Federal Bureau of Investigation (FBI) raided the facility and unearthed indications of environmental crimes.[6] Plant workers mishandled radioactive waste and the community theorized that some of the waste had been poured into the ground, released into the air, and permeated the soil throughout the area.[7] As this news emerged, the plant's neighbors saw their property values plummet.[8] Consequently, in 1990, the property owners filed a class action suit under Colorado state tort law and the federally mandated Price-Anderson Act (PAA or "the Act"), alleging that the operators of the nuclear plant negligently mishandled high-threat radioactive and nuclear materials.[9] The dual authority action proceeded in hopes of recovering for damages caused by releases of plutonium and other hazardous substances.[10]

The PAA, which was enacted in 1957 to promote the growth and innovation of nuclear enterprises, currently serves as insurance coverage to nuclear power plants in the event of an incident or accident.[11] The Act is designed to protect the nuclear industry against liability claims arising from nuclear incidents while still ensuring compensation coverage for the general public.[12] To promote the investment of nuclear energy plants given the nexus of low liability and likelihood for risk, the Act establishes a no-fault insurance-type system, in which the first $12.6 billion of payout is industry-funded.[13]

However, after twenty-five years of litigation, the United States Court of Appeals for the Tenth Circuit ultimately held that the plaintiffs in the Rocky Flats case did not meet the criteria to bring their suit under the PAA, and that they had to rely solely on Colorado state tort law and assert a nuisance claim.[14] The court held that plaintiffs alleging injury from "lesser nuclear occurrences"—that is, injuries failing to meet the PAA's threshold of bodily injury or property damage—could recover damages under state tort law.[15] This resulted in more than $1 billion judgment for a group of plaintiffs whose injury was characterized as a "lesser nuclear occurrence."[16] The characterization as a "lesser nuclear occurrence" meant that the damage at the Rocky Flats Plant did not constitute enough harm to trigger the PAA compensation scheme; as a nuclear incident, the plant was personally liable."[17]

Despite how dangerous to the industry that figure may seem, the lasting consequences of the decision could be even graver. For instance, the Tenth Circuit's decision provides the plaintiffs with an option to circumvent the PAA's entire nuclear liability regime.[18] The decision allows a plaintiff to file a claim, regardless of the degree of nuclear harm and elevated PAA criteria, which could result in a judgement against the nuclear plant and effectively end the energy innovation taking place.[19] Citizens injured in some way by a nuclear plant deserve compensation and justice. Yet, in siding with the plaintiffs, the Tenth Circuit overturned the PAA's vigilantly crafted equilibrium of protecting the public from harm created by radioactive material, while defying the comprehensive nuclear liability regime for owners and operators of nuclear facilities.[20] This result creates an incentive for defendants of nuclear tort actions to allow Price-Anderson judgments against them, which is likely preferable to the litigation of a state tort claim.[21] While the Tenth Circuit's misinterpretation of the "nuclear incident" at Rocky Flats resulted in a damages amount that exceeded the compensation intentionally allocated for this type of event by Congress, it also contradicted Ninth Circuit and Fifth Circuit.[22] Consequently, the decision will negatively impact innovation

*J.D. Candidate, Washington College of Law 2019

in an industry critical to essential human services such as energy, power, and national security.[23]

The Tenth Circuit's decision renders nuclear market participants susceptible to a new and undefined liability. This uncertainty has a cascade of negative consequences. First, such uncertainty threatens to destabilize and weaken the value of the PAA's compensation system by disrupting the settled expectations of participants and investors in the nuclear market.[24] Second, it discourages added participation and investment in nuclear energy within the United States.[25] Further, it threatens to make the United States an outlier among countries with commercial nuclear energy programs, many of which are governed by international nuclear liability conventions predicated on the principles inherent in the PAA.[26] Aside from the political and industrial consequences stemming from *Cook v. Rockwell International Corp.*,[27] the decision may ultimately allow the court to regulate the industry as a means to modify an industry that is rapidly modernizing, effectively amending the definition of a "nuclear incident" within the PAA.[28]

This Article analyzes the preemption concerns raised by the Tenth Circuit decision in *Cook v. Rockwell International Corp.*, and the sweeping outcomes for the nuclear energy industry. Part II provides background information on the PAA, the federal law that preempts the Tenth Circuit decision, and compares the preemption doctrine in similar energy contexts.[29] Part III analyzes the extensive impacts that the Tenth Circuit's preemption misinterpretation, and current posture of the law from this decision, poses for nuclear energy companies, the power industries, and judicial review.[30] Part III also acknowledges that while this was a bad judgment with negative repercussions for the legal and nuclear communities, the definition of a "nuclear incident" in the Atomic Energy Act (AEA) should conform to the related definition of "nuclear damage" in the Convention on Supplementary Compensation for Nuclear Damage.[31] This will ensure that the legal framework from the *Cook* decision has a limited impact and is better defined going forward.[32] Communities should receive monetary compensation for injuries permeating out of nuclear plants. Therefore, the PAA should be amended allowing citizens injured from modern nuclear occurrences to merit compensation under the liability regime specifically designated for that type of injury.

## II. Background

### A. Overview of the Price-Anderson Act (PAA): Incentivizing Energy Innovation

Nuclear power plants and nuclear reactors are often located within a few hours' drive of major cities, like Los Angeles and New York.[33] The Three Mile Island plant, for example, is located near Philadelphia, Pennsylvania with a metropolitan area radius encompassing over 2 million people.[34] Such proximity raises questions about the safety of the plant and the cost resulting from a nuclear accident. Congress enacted the PAA in 1957 to provide answers to such questions.[35] In 1957, the United States wanted to promote the development of nuclear energy to decrease dependence on fossil fuels.[36] The country was developing nuclear weapons, aligning with the International Atomic Energy Agency (IAEA), and propping up nuclear power plants, and while nuclear innovation posed a number of safety risks, it was ordered as the first economic alternative to coal.[37] Nuclear power plants emit fewer radioactive materials into the environment than a traditional coal-burning plant.[38]

Prior to 1957, an obstacle emerged for the development of cleaner energy. To transition from a government controlled industry to a privately operated facility conducting innovative energy development an enormous amount of insurance was required.[39] Insurers were unwilling and unable to provide risk coverage to this seemingly perilous industry whose major product possesses all the features of uninsurability.[40] Consequently, Congress passed the PAA as an amendment to the AEA, ensuring substantial funds are available to compensate the public in the event of an accident.[41]

The PAA's success comes from its twofold subsidy on the nuclear industry. First, it limits the amount of primary insurance that nuclear operators must carry—an uncalculated subsidy in terms of insurance premiums that they do not have to pay.[42] This distorts electricity markets by masking nuclear power's unique safety and security risks, and grants nuclear power an unfair and undesirable competitive advantage over other energy alternatives.[43] Second, the PAA caps the liability of operators in the event of a serious accident or attack, leaving taxpayers responsible for most of the damages beyond.[44]

In passing the PAA, Congress capped the amount of liability an energy company could face in the event of an accident. Through this program, the nuclear energy industry maintains $43.2 billion in liability coverage by the federal government.[45] Thus, the PAA creates exclusive liability for nuclear operators for injury arising from a "nuclear incident," and supplies a large pool of funds to ensure prompt and fair compensation for citizens physically or economically injured.[46] In turn, the PAA upholds the framework for nuclear plant insurance and sets an upper limit on industry-wide liability.[47] The PAA worked well when insurance funds allocated under the Act disbursed approximately $71 million in claims and litigation costs related to the 1979 accident at Three Mile Island.[48] The Act has proven so successful that Congress used it as a model for legislation to protect the public against potential losses or harm from other hazards.[49]

This $12.6 billion makes capital investment in the nuclear energy industry more attractive to investors because their risk is minimized and fixed.[50] Thus, the PAA incentivizes investment in an area of the energy industry whose development and innovation comes with potentially significant risks.

Consequently, the Act is a double-edged sword for the public that it purports to protect. While the legislation has a provision to protect the people, it was primarily intended protect the industry and bolster investor confidence.[51] Congress carefully crafted the Act to create a federal nuclear liability regime.[52] The Act protected nuclear facility owners and operators from potentially crippling charges arising from state tort actions.[53] For example, the Act contains an exclusive liability regime and

a comprehensive financial protection scheme serving the dual purpose of protecting the public and encouraging nuclear development.[54] Additionally, Congress drafted the Act to minimize its interference with state tort law.[55] The Act's legislative history repeatedly stressed the limited nature of the federal intrusion.[56] On the liability front, to facilitate prompt and equitable compensation in the event of a "nuclear incident," the PAA channels liability exclusively to the operator, without the need for claimants to prove fault on only part of the operator or other entities at the facility.[57] Another limitation of the PAA is the definition of "nuclear incident"; the Act defines it broadly as "any occurrence . . . within the United States causing . . . bodily injury, sickness, or death, or loss of or damage to property, arising out of or resulting from the radioactive, toxic, or other hazardous properties of source, special nuclear, or byproduct material."[58] The particularity of the words restrict the type of harm the PAA provides coverage for, and in an era of modern technology and advanced nuclear research, harm could be in a lesser or different form and not trigger the Act.

Despite this broad definition of "nuclear incident," not every personal injury suit brought against Commission licensees triggers the PAA's compensation scheme unless it is an extraordinary nuclear occurrence ("ENO").[59] The accident causing the harm must be sufficiently severe to classify as an ENO. One example where plaintiff's claims failed to meet the ENO criteria was in *Silkwood v. Kerr-McGee Corp.*[60] This case is significant to current PAA preemption analysis because it revolves around coverage for a nuclear occurrence being within federal jurisdiction.[61] The PAA issue in *Silkwood* was whether the amendment impliedly preempted punitive damages awarded in a suit not brought pursuant to the Nuclear Regulatory Commission's ("NRC") ENO provisions.[62] The Court found that Congress prohibited states from regulating nuclear safety, but did not prohibit judicial recourse for those injured by illegal conduct.[63] Ultimately, the PAA explicitly draws a roadmap for the procedural nuances associated with bringing a nuclear claim.

### *i. Price-Anderson Act Jurisdictional Elements*

The Act has two provisions specifically conferring jurisdiction to federal trial courts. One provides that, when there has been a nuclear incident, "any indemnitor or other interested person" may petition the federal district court for a determination as to whether the liability for the incident may exceed the coverage mandated by the Act.[64] Pursuant to this section, a federal district court might find it necessary to supervise distribution from the indemnity fund.[65] The second relevant section of the Price-Anderson Act provides in pertinent part:

> (2) With respect to any public liability action arising out of or resulting from an extraordinary nuclear occurrence, the United States district court in the district where the extraordinary nuclear occurrence takes place . . . shall have original jurisdiction without regard to the citizenship of any party or the amount in controversy. Upon motion of the defendant or of the Commission, any such action pending in any State court or United States district court shall be removed or transferred to the United States district court having venue under this sub-section.[66]

The relationship between the PAA and a state tort claim is hierarchical. For example, the Supreme Court relied on the PAA as the primary remedy for addressing state tort claims involving the nuclear industry.[67] Circuits agree that the legislative history of the PAA indicates that Congress intended that state tort law be the basis of suits resulting from nuclear accidents, the Act contains provisions that align significantly with the underlying state law even in the absence of an ENO declaration.[68] By extending the PAA's coverage through the 1988 Amendments to the ENO criteria, Congress expressly granted rights, otherwise unavailable under state tort law.[69]

### *1. Price-Anderson Act Amendment of 1966 and 1988*

Congress has continually extended the timeline of the PAA's coverage, and it has made significant changes to the language in the twenty-two years between 1966 and 1988. First, in 1966, Congress amended the PAA, requiring those indemnified under the Act to waive common law defenses, like contributory negligence, if an action was raised after an "extraordinary nuclear occurrence."[70] Congress expressed concern that aspects of state tort law, like statutes of limitation that were too short to allow actions following radiation exposure, could frustrate the PAA's purpose of compensating victims of nuclear incidents.[71] Congress believed this approach reflected the methodology found in the original PAA: "interfering with State law to the minimum extent necessary."[72] Furthermore, the legislative history for the 1966 Amendments included that "a claimant would have exactly the same rights as today under existing law, including benefit of a rule of strict liability if applicable State law so provides."[73]

Following the events of Three Mile Island in 1979, Congress amended the PAA again in 1988. This second change granted United States district courts original and removal jurisdiction over "public liability action" which "aris[es] out of or as result from a nuclear incident."[74] The Act was amended because the Three Mile Island accident could not be consolidated into federal court since it did not reach the level of an "extraordinary nuclear incident."[75] Thus, the 1988 Amendments solved this issue by reducing the "extraordinary" threshold at which the provisions of the PAA would apply, making the Act less rigid. Means for action after the implementation of the 1988 Amendments include "legal liability arising out of or resulting from a nuclear incident," and no longer the requirement to have an ENO.[76]

### *2. The Relationship Between the Price-Anderson Act and the Convention on Supplementary Compensation*

The PAA proved successful enough within the United States to inform international regulations on nuclear liability. The Convention on Supplementary Compensation for Nuclear Damage (CSC) provides a global nuclear liability and compensation scheme.[77] Its regime guarantees timely reimbursement

when facing particularized injury from international nuclear energy incidences.[78] In addition to maintaining internationally agreed upon terms and definitions, the CSC features the creation of an international insurance pool to supplement the amount of compensation available for nuclear damage resulting from an incident.[79] Mirroring the principles of the United States' PAA, the CSC functions as an internationally respected liability standard for nuclear damage adhered to across the globe.[80] Therefore, the definition of "nuclear damage" similarly encompasses a broader spectrum of liability for an incident, accident, or lesser occurrence.[81] However, unlike the specific "nuclear incident" definition included in the PAA, the CSC's definition of "nuclear damage" includes economic loss and impairment of the environment.[82] Differences in terminology, such as the example of "nuclear damage," make it easier and more mathematically efficient to receive compensation from a nuclear accident, which is less financially devastating to the energy innovation within the nuclear industry.

The CSC is significant for having borrowed concepts from the PAA in its formulation. However, with the advancement of nuclear technology and the evolution of nuclear incidences occurring at plants in the United States, the PAA should adopt the broader definition from the international compensation plan that it helped create so that plaintiffs are likely to be compensated by a federal fund intended for this type of harm.

### B. The Case with the Billion Dollar Pay Out: Summary of *Cook v. Rockwell International Corp.* and Associated Consequences of the Decision

A childhood in Colorado often consists of many outdoor activities, such as playing in the mountains and swimming in the many lakes and streams. Finding out that those streams were contaminated with weapon-grade plutonium would be devastating. This is likely the story for anyone living outside of Denver in the 1970s.

With the increased proliferation of nuclear energy, courts began seeing litigation against nuclear power plants in the area of negligent handling of material.[83] Most notably, the claim in *Cook v. Rockwell International Corp.* stemmed from the mishandling of radioactive waste at the nuclear weapons facility located near downtown Denver.[84] During the Cold War, Dow Chemical and Rockwell International Corp. operated the plant under contracts with the federal government.[85] Adjacent property owners claimed harm began in 1989, when FBI agents raided the plant and unearthed signs of environmental crimes.[86] Evidence at trial implied that plant workers disposed of radioactive waste into the ground, where the waste leaked into bodies of water; and released radioactive particles into the air, which then migrated onto the soil around the plant.[87] Unfortunately, the plant did not have a spotless environmental legacy prior to 1989 either. For example, the history of the plant included plutonium fires in 1957 and 1969 that wafted toxic smoke over the Denver metropolitan area[88] and leaking barrels of radioactive waste and other small accidents contaminated downstream communities.[89] In addition to diminished health and safety conditions, the contamination caused nearby residential property values to decline, prompting the property owners to file a lawsuit against the plant operators under both the PAA and state nuisance law. [90]

In 2006, a federal jury convicted Dow Chemical and Rockwell International Corporation on charges of negligent conduct.[91] Two years later, a Colorado federal judge ordered the companies to pay a total of $926 million in damages, including $549 million in prejudgment interest due to extensive pre-trial delays.[92] The Tenth Circuit vacated that decision in September 2010, siding with the defendants in finding that plutonium contamination by itself was not adequate cause to seek damages under the PAA, which led to the plaintiffs' appeal on state law grounds.[93]

In 2015, after twenty-five years of a complicated law suit involving radiation forensics, nuclear experts, a variety of litigation tricks,[94] and procedural reversals and remands,[95] the Tenth Circuit reversed the holding again in favor of the property owners. The Tenth Circuit held the claim originally brought under the PAA was invalid, and the case was alternatively a matter of state tort law.[96] The plaintiffs in the case were awarded over $900 million plus interest, for a total award upwards of $1 billion.[97] Instead of using money from the funding pool designed to compensate this type of harm, the award came from the nuclear plant's pocket..[98] The plaintiffs took advantage of this misjudgment by abandoning the mechanisms and benefits provided by the PAA and pursuing the background state law nuisance claim instead.[99] In response, the defendants argued that such an action was preempted by the PAA, which the court of appeals ultimately rejected.[100] Thus, allowing non-PAA state law claims for such "lesser occurrences" renders the Act's limitation on aggregate liability meaningless.[101]

### C. The Preemption Doctrine and its Application to the Nuclear Field

When state regulations conflict with a federal law, it triggers Article VI of the U.S. Constitution, which declares: "[t]he laws of the United States which shall be made in pursuance thereof . . . shall be the supreme law of the land; and the judges in every state shall be bound thereby, anything in the Constitution or laws of any State to the contrary notwithstanding."[102] Thus, a federal court may require a state to stop certain behavior it believes interferes or conflicts with a federal law.[103] This is the Supremacy Clause, and it gives rise to what is known as the doctrine of federal preemption.[104] However, application of the preemption doctrine is rarely straightforward.[105] In fact, the preemption doctrine gets extremely complicated and controversial.[106] As the Environmental Law Reporter notes, "ascertaining the presence of such federal-state conflicts is largely a matter of statutory interpretation."[107] When determining whether Congress chose to expressly preempt state law, courts look to the plain meaning and explicit statutory command.[108] However, when Congress fails to expressly address either the presence or scope of preemption within the statute, courts must somehow accommodate the tension between the competing constitutional

procedures.[109] Courts attempt this by inquiring into the purposes of the federal statutory scheme and by delving into the congressional intent behind its enactment.[110]

This implied preemption presents more complicated questions for courts. Judges must look beyond the language of the federal statutes to determine whether Congress has occupied the field in which the state is attempting to regulate, or whether the enforcement of the state law frustrates the federal purpose.[111] In determining whether to infer a congressional design excluding state regulation, courts first examine the language and legislative history of the federal statute.[112] Beyond that, they eschew any rigid formula and look instead to general criteria. For example, general criteria like the pervasiveness of the federal regulatory scheme and the need for nationally uniform regulation.[113] The imprecision of these indicia give courts substantial leeway in determining whether implied preemption should be found in particular cases.[114]

The next shift in the development of the preemption doctrine occurred during the 1940s. Within a six-year period, the Court decided *Hines v. Davidowitz*[115] and *Rice v. Sante Fe Elevator Corp.*[116] Although both decisions preserved the congressional intent requirement for finding preemption, taken together they greatly expanded the permissible scope of the Court's inquiry into legislative intent.[117] The Court in *Hines* held that preemption was proper where the state law "stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress."[118] *Rice* went further, holding that preemptive intent could be inferred from such factors as the pervasive nature of the federal scheme or a dominant federal interest in the subject area.[119]

Subsequently, after 2007, there was a tendency for the Supreme Court to err on the side of broadly interpreting preemption as a means to promote judicial efficiency.[120] Conforming to the trend, at the Circuit Court level, when faced with facts involving state regulations of nuclear facilities, federal regulations prevailed every time.[121] The Three Mile Island incident in Pennsylvania, for instance, intensified national debate over the merits of nuclear power through the lens of a preemption scope. [122] To gain control over the future of energy and power plants, several states enacted statutes to impose restrictions and conditions on the siting of any new power reactors within their borders.[123] "While logical, these state statutory restrictions ignite a legal dilemma as to which of the federal laws governing nuclear development preempt state and local regulatory authority."[124]

Several cases illustrate the premise that the federal government sought to reign supreme on nuclear safety issues. For example, *Northern States Power Co. v. Minnesota*[125] represents a federal case wrestling with the preemptive effect of nuclear provisions of the AEA, where the Eighth Circuit found the state incapable to impose radiation standards more restrictive than criteria defined by the Atomic Energy Commission.[126] The preemption analysis in *Northern States* was more straightforward in comparison to preemption analysis of the nuclear regulations on the West Coast. In *Pacific Legal Foundation v. State Energy Resources Conservation & Development Commission*,[127] the California Warren-Alquist Act required conditions for nuclear plant certification was more than an attempt to minimize radiation hazards.[128] Therefore, the court scrutinized the extent of federal preemption of state ability to control nuclear development beyond reducing radiation risks.[129] Thus, whether courts apply a broad and expansive preemption breakdown regarding states' nuclear regulations, as in *Northern States*, or a direct language argument for preemption as in *Pacific Legal Foundations*, the rulings bode potentially unwell for enacted state laws attempting to regulate future nuclear energy development.[130] The AEA preempts laws regulation radiation hazards.

In an attempt to clarify the regulatory power of federal and state authorities over nuclear development, Congress added § 274 to the AEA in 1959.[131] This amendment detailed the procedure by which the AEA could transfer its regulatory authority over certain types of nuclear material to the states.[132] The PAA prohibited the Commission, however, from ceding its authority over especially hazardous activities and materials.[133] Additionally, Section (k) of the 1959 amendment expressly preserved all state or local regulatory activities designed "for purposes other than protection against radiation hazards."[134] Thus, the expressions of congressional intent within the legislative history of the 1959 amendment demonstrated that Congress likely wished to preempt state law to some degree.[135] Building on this explicit preemption, in 1988 when Congress enacted the PAA amendments, it transformed the "Price-Anderson landscape," and resolved the tension between exclusive federal regulation of nuclear safety and state law compensation for injuries.[136]

## III. Analysis

To preempt state law causes of action and clarify liability under the PAA, Congress should amend the PAA by utilizing the negative impacts from *Cook.* Individuals should be liable for lesser "nuclear occurrences" because it will ensure damages are paid from the fund and protect the longevity of nuclear innovation.

The Tenth Circuit's misinterpretation of preemption principles calls for an amendment to the PAA that stimulates nuclear innovation while still heavily compensating the general public. The *Cook* case gave the Tenth Circuit an opportunity to paint the modern preemption stroke on an industry in desperate need of modernization. It also gave the Tenth Circuit a chance to clarify preemption concerns and affirm the rationale surfacing out of its fellow Circuits. The United States' nuclear programs are essential to empowering the country.[137] In contrast to the less reliable wind and solar energy options, nuclear energy provides the United States with a consistent and steady power source.[138] Despite the advantages to nuclear innovation, hazardous events contributed to public fear of the industry.[139] However, the accident at Three Mile Island that created skepticism of nuclear energy was two generations ago.[140] Since then, engineers have developed designs to avoid such failures.[141] Further, the Three Mile Island incident expressly met the criteria outlined in the PAA for liability coverage.[142] With the advancement of nuclear technology and measures taken to insulate themselves from

liability within the industry, Congress and the regulators are at a crossroads with the PAA and the terms and technical definitions from the 1950's that it encompasses.[143] Based on the confining procedural criteria of the PAA, and the way a plaintiff may only raise a PAA claim if the technical benchmarks are satisfied, the Tenth Circuit in *Cook v. Rockwell Int'l Corp.* misinterpreted preemption principles. Yet, in examining the consequences of the Tenth Circuit's rationale in *Cook*, it is first essential to examine preemption concerns to understand how the Tenth Circuit established the holding that directly contradicts that of other Circuits—reconciling bad facts and creating consequential law. After examining the significant impacts and whether the decision was preempted, it is clear the decision precipitates an essential amendment to the PAA that will in turn protect nuclear plants from having to pay billions in damages for mere occurrences, and further protect nuclear innovation.

### A. The Tenth Circuit Decision in Cook is Significant for Conflicting with Judicial Precedent, Congressional Intent, and for Opening the Litigation Floodgates

The *Cook* decision is significant because it contradicts other Circuits, unravels congressional intent regarding the federal law, and widens the judicial door by creating the option to circumvent the PAA with a nuclear liability claim. The nuclear industry invested in innovation by trusting the PAA's nuclear liability regime.[144] The Tenth Circuit's decision jeopardizes the industry by creating new risks, in addition to the dangers associated with the activity on its face.[145] For example, there is a real probability that nuclear owners and operators, and thus, government entities, could be burdened with significant judgments—perhaps upwards of billions of dollars—in favor of plaintiffs who may not have suffered harm that Congress deemed significant enough to warrant compensation under the PAA.[146] If courts rely on *Cook* in cases of alleged harmful occurrences compliance with the federal safety standards would not provide any protection.[147] Cities could be subject to millions of dollars in damages, as assessed by a lay jury, even though the hazard may constitute an undetectable amount, like in the Three Mile Island accident.[148] While the creation of new risks could be extensive, they are still hypothetical. Concrete application of the decision's significance begins with its lack of precedent.

#### *1. Cook Represents an Unprecedented Decision*

The *Cook* court's decision represents a split with the Fifth Circuit and is at odds with the reasoning of other Circuits to hear a similar matter.[149] For instance, the Tenth Circuit completely disagreed with the holding of *Cotroneo*, and instead found support in the reasoning of the dissent in *Cotroneo*.[150] The Tenth Circuit departed from other Circuit decisions when choosing between a suit under PAA or under state tort law. There have been numerous nuclear liability claims triggered by narrowly tailored state statutes within the other Circuit.[151] Consistently, the court has held that a plaintiff who asserted a PAA claim could not pursue a freestanding state-law claim outside the PAA based on the same alleged facts.[152] Similarly, the Ninth Circuit[153] has relied on the language of the PAA taking precedence over state law in cases that closely paralleled the facts of *Cook*. The Ninth Circuit consistently held that "[t]he PAA is the exclusive means of compensating victims for any and all claims arising out of nuclear incidents."[154]

In departing from other Circuits, the Tenth Circuit's decision will create uncertainty in the application of the PAA. Application ambiguity will particularly impact a number of nuclear industry players that are located within the Tenth Circuit, including Department of Energy's ("DOE") Waste Isolation Pilot Plant facility (the nation's only disposal facility for high-level nuclear waste), the Sandia National Laboratory, and the Los Alamos National Laboratory, all of which are important national security facilities.[155] Simply by virtue of their physical location, facilities in the Tenth Circuit now face uncertainty about their potential liability exposure even if a nuclear incident never occurs. In addition to being an unprecedented decision and contradicting other Circuits on analogous cases, the *Cook* decision questions Congress's intent in determining what scenarios merit coverage.

#### *2. The Cook Decision Unravels Congressional Intent*

In *Cook*, the Tenth Circuit substituted its views for the judgment of Congress. The PAA is an example of a legislative economic scheme, in which Congress has sought "to structure and accommodate the burdens and benefits of economic life."[156] It is clear that Congress intended the PAA to provide a safety net of private insurance for government indemnification and claims of "public liability" which arise from a "nuclear incident."[157] This is clear in part because Congress's amendment to the PAA in 1988 includes all nuclear incidents with federal jurisdiction and prohibits punitive awards in certain circumstances.[158] Additionally, the PAA does not allow recovery for claims such as psychiatric damages or emotional distress not connected to physical bodily injury.[159] Moreover, as the Tenth Circuit explained in another context, "the inclusion of certain remedies and the exclusion of others under the federal scheme would be completely undermined" if plaintiffs remained "free to obtain remedies under state law that Congress rejected."[160] The same principle holds here: Congress specifically delineated the claims that plaintiffs may bring related to nuclear harm under the PAA.[161] Permitting plaintiffs to make an overt end-run around the federal nuclear liability system to bring alternative claims under state law would undermine the entire federal scheme.

Then-Judge Gorsuch, in writing the *Cook* opinion, discussed Congress's intent in drafting the PAA.[162] While he justified his narrow interpretation of intent by only looking at particular areas of the language, he neglected the bigger industry motivation that Congress preserved, as shown in the many amendments to extend the PAA.[163] In substituting the court of appeals opinion for the intent of Congress, Judge Gorsuch leverages an angle to the preemption analysis for strengthening his rationale.[164] Nevertheless, he missed the mark in analyzing the preemption doctrine, which determined the outcome of his decision.[165] The

Tenth Circuit claimed that the Supreme Court disfavors preemption, and that the text of the PAA "merely affords a federal forum when a nuclear incident is 'assert[ed]'."[166] However, "[n]othing in this language speaks to what happens when a nuclear incident is alleged but unproven."[167] In addition to explicitly contradicting the intent of Congress and misinterpreting preemption principles, *Cook* also could widen the litigation gate and lower the threshold for bringing a nuclear liability claim to court. Notably, in deciding that the PAA is not a complete preemption statute, the opinion omitted any discussion of several cases that the defendants relied on in support of their preemption argument.[168]

The statutory terminology and nuclear labeling in the PAA contributed to the preemption misinterpretation.[169] In its holding, the Tenth Circuit designated alleged but unproven "nuclear incidents" as "lesser nuclear occurrences" and stated, "it's hard to conjure a reason why Congress would allow plaintiffs to recover for a full panoply of injuries in the event of a large nuclear incident but insist they get nothing for a lesser nuclear occurrence."[170] Likewise, the PAA does not independently define "occurrences," "nuclear occurrences," or "lesser nuclear occurrences."[171] There is historical fluctuation on broadening and narrowing technical terms in order to establish preemption interpretations. In acknowledging historical preemption concerns presented in nuclear driven cases, the standards articulated by *Hines* and *Rice,* for example, were so broadly phrased that congressional intent to preempt could be found in any area of comprehensive federal legislation.[172]

### *3. Cook Opens Court Doors to Circumvent PAA*

Should future courts confronting a state law face-off with the PAA choose to follow the reasoning of *Cook*, many state laws aimed at limiting or conditioning nuclear growth will prevail in federal court.[173] After *Cook*, anyone can sue a nuclear power plant without needing to satisfy the nuclear incident requirements outlined by the PAA. If plaintiffs prove they suffered from a "nuclear incident," they are entitled to relief under the PAA, subject to certain limitations provisions built in "to ensure that liabilities arising from large nuclear incidents don't shutter the nuclear industry . . . ."[174] However, if the plaintiffs cannot prove a "nuclear incident" under the PAA, but can prove some sort of "lesser occurrence" or "lesser state law nuisance," they may proceed on their state law claims.[175] Thus, plaintiffs can circumvent coverage fanned out by the PAA. There is now the likelihood that owners and operators could be individually charged with significant judgments without a cap—potentially in the billions of dollars—in favor of litigants who may not have suffered harms that Congress deemed significant enough to warrant compensation under the PAA.[176] Even if plaintiffs were unsuccessful, without the framework of the PAA, such cases may sit in court for years in protracted, complex, and expensive litigation.[177] It is clear that the authority under state tort law could lead to a better pay out.[178] In examining the significant impacts *Cook* may have on judicial efficiency and the industry, the consequences should stimulate an amendment to the definition of a "nuclear incident."[179]

## B. The PAA Should Have Preempted State Tort Law in the Tenth Circuit

The Tenth Circuit's decision conflicts with every other Circuit that has considered the preemptive nature of the PAA.[180] The question for the court hinged on the determination of whether the challenged state law is one that the federal law was intended to preempt.

In looking beyond the express language of federal statutes to determine whether Congress has occupied the field in which the state is attempting to regulate, whether a state law directly conflicts with federal law, or whether enforcement of the state law might frustrate federal purposes, the Tenth Circuit misstated this analysis. If the court looked to the pervasiveness of the regulating federal scheme, the federal interest at stake with the PAA, and the danger of frustrating federal goals in determining whether a challenged state law can stand, the majority would arrive at a different holding.

The PAA's liability scheme mirrors the preemption doctrine, under which "the preemptive force of a statute is so extraordinary" that normal state law claims are converted into federal claims for efficient and equitable resolutions.[181] As the Court acknowledged in *El Paso Natural Gas Co. v. Neztsosie*, the PAA is analogous in its preemptive force to another federal legislative system under the Employee Retirement Income Security Act of 1974 ("ERISA") and the Labor Management Relations Act.[182] Moreover, the Tenth Circuit should have applied the analysis from *Neztsosie* to their decision in *Cook*.[183] The Court in *Neztsosie* observed that the 1988 Amendments provide "clear indications of the congressional aims of speed and efficiency" in the resolution of claims.[184] Federal legislative systems that create exclusive federal causes of action, such as ERISA and the PAA, are more appropriately analogues than the Class Action Fairness Act, which the Tenth Circuit cited by analogy in *Cook*.[185]

Congress intended for the federal government to regulate the safety aspects of the construction and operation of energy facilities and power plants.[186] This rationale is consistent with Sixth and Seventh Circuit holdings and their assessment of intent. Those Circuits found that Congress did not wish to create a stand-alone federal tort for a public liability action.[187] The analysis provided that the substantive rules for decision in such action shall be derived from state law, which, despite its prior preemption concern, might encompass substantive issues like the requisite duty of care and the burden of proof for causation.[188] Therefore, the vision was for state law to augment the federal regime substantively, not circumvent it.

### *1. The Supreme Court's Role in the Tenth Circuit's Preemption Analysis*

The Tenth Circuit's reliance on *Silkwood v. Kerr-McGee*[189] is incorrect. After examining both the preemption doctrine generally and its application in the nuclear field specifically, the opinion in *Silkwood* maintains distinguishable authority over the *Cook* decision.[190] In *Silkwood,* the Court, voting 5-4, found that federal law did not impliedly preempt a $10 million dollar punitive damages award against a nuclear power plant for

negligently allowing employee, Silkwood, to be contaminated with plutonium.[191] While *Silkwood* held that Congress had no intention, when it amended the AEA of 1954, of forbidding the States to provide remedies for injuries from radiation. Congress did wish to protect the nuclear industry from frivolous claims that lacked scientific backing.[192] Additionally, *Silkwood* was decided in 1984, four years before the 1988 Amendments to the PAA, which established the liability action as the new and sole federal cause of action.[193] Thus, the Tenth Circuit needed to distinguish *Cook* from *Silkwood* since *Cook* possessed the elements for complete preemption.

The Supreme Court made clear that federal law completely occupies the field of nuclear safety and preempts state action in this area. Therefore, courts believed that federal law similarly dictates the duty a defendant owes to a plaintiff in a public liability action.[194] Regarding radiation injuries in *Silkwood*, preemption should not be based on grounds "that the Federal Government has so completely occupied the field of safety" that state remedies are precluded.[195] Instead the Court must determine if "there is an irreconcilable conflict between the federal and state standards," or if the imposition of state standards for damages interferes with the purpose of the federal law.[196] However, it is unclear if there is a difference between occupying the field and conflicting between standards in this context. Thus, any liability action with significant federal ingredients satisfying preemption is consistent with the facts alleged to have occurred in *Cook* at the Rocky Flats Plant.

Despite the Supreme Court giving wide latitude to the states to regulate nuclear power within their borders and the significance of *Silkwood*, the *Cook* decision establishes new parameters governing preemption in the energy field.[197] For example, the Tenth Circuit erred when it downplayed its preemption analysis just because the defendants failed to invoke implied preemption doctrine and appeared to disclaim reliance on it.[198] The Tenth Circuit also relied on the fact that because both companies deflected on conflict preemption principles by not addressing them, and the possibility of using preemption as an affirmative defense, that the defendants forfeited any application of preemption.[199] Regardless, just because the defendants appeared to relinquish the argument of preemption as an affirmative defense, should not mean that preemption did not exist in this case.[200] Unlike in *Silkwood*, state standards interfere with the purpose of the PAA in *Cook*.[201] Therefore, the Tenth Circuit's omission of a federal preemption argument is strongest when it hinges on the fact that the plaintiffs failed to meet the PAA criteria of being a nuclear incident.[202] However, the Tenth Circuit did not rely on this as their justification.[203]

Even in circumstances outside of the nuclear incident arena, if any state regulation or law conflicts with a nationalized policy it may be preempted. In *American Insurance Association v. Garamendi*,[204] the Supreme Court considered the constitutionality of a California law designed to help California Holocaust survivors collect on unpaid insurance claims from German insurance companies.[205] Despite the absence of any clear statement preempting state laws such as California's, the Court found that the state law conflicted with national policy and "st[ood] in the way of federal, diplomatic objectives."[206]

Additionally, the Tenth Circuit leveraged plain meaning to omit preemption considerations in *Cook*. The narrowly tailored definition of a "nuclear incident" contributed to Judge Gorsuch's misinterpretation of preemption. As discussed above, the scope of compensable claims under the PAA is circumscribed by the Act's definition of "nuclear incident" – i.e., "any occurrence . . . causing . . . bodily injury, sickness, death, or loss of or damage to property arising out of or resulting from the radioactive, toxic, or other hazardous properties of nuclear material."[207] As a matter of law and until the *Cook* case, the definition of "nuclear incident" established the threshold for asserting a compensable injury from a release of radiation.[208] A plaintiff who cannot demonstrate bodily injury or property damage as defined by the PAA cannot meet the prerequisites for a liability action, and thus cannot maintain any action for a radiation-related claim.[209] Therefore, when the claim in *Cook* satisfied what the Tenth Circuit deemed as a "lesser nuclear occurrence," the court argued that plaintiffs failed to meet the PAA criteria, and thus, eliminated a preemption argument.[210] The ambiguity in the definition of the term "lesser nuclear occurrence" is a critical problem emerging from the *Cook* decision. Given the evolving nature of the nuclear industry, the definition permitting coverage under the PAA is too narrow and has contributed to the removal of the PAA authority and the unprecedented damage award.[211] Moving forward, courts should consider the definition of a nuclear incident more broadly when looking to apply PAA funds for liability coverage.

The Tenth Circuit should have never been able to justify reliance on state law for this matter. Radiation exposure and improper handling of nuclear waste has the same consequence in Colorado as in Florida or New York. The Tenth Circuit's actions illustrate one of the reasons for federal preemption: the issue is too complex to place in the hands of applying varied state law causes of action.[212] Whether or not courts could use state law causes of action and their own standard of care to regulate nuclear safety through huge monetary awards was the underlying policy issue addressed by the Supreme Court in *Silkwood*. That was the "tension" the majority opinion found Congress allowed when it did not create a federal cause of action in the statute. The *Cook* verdict is exactly the evil feared by the *Silkwood* dissenters.[213] While the Supreme Court's analysis of preemption questions in *Silkwood* demonstrates a willingness to allow greater state regulation of the nuclear energy industry than that which had previously been permissible under the *Northern States* decision, there is a shift at the Circuit level to take back the federal rule when a nuclear incident is involved. As a result, *Cook* obscured both the basis for its own particular outcome, as well as the factors weighed by the Court in deciding preemption cases in the nuclear field in general.

### C. Destructive Consequences for the Nuclear Industry and Judicial Efficiency

For the past several decades, a hiatus on building new nuclear-power plants stymied the nuclear industry.[214] The reasons for the halt in construction have included public outrage over the Three Mile Island meltdown, increasing regulation, and plant operators' need to insure against a multitude of risks.[215] Nuclear energy companies invested in this industry in reliance of the PAA's thorough liability regime.[216] The Tenth Circuit's opinion enables communities and people to circumvent the PAA, with its punitive cap, and bring a claim under state tort law, which could be fatal to the industry. Companies already heavily invested in the nuclear market can do little to mitigate this new risk. And companies not yet invested in the United States nuclear market will be discouraged to participate, invest, or further expand—a result precisely contrary to congressional and executive branch policy and intent.[217] Additionally, the Tenth Circuit's decision threatens to destabilize the global market for nuclear energy, which is an important component of the United States' energy mix, particularly in light of climate change concerns. Not only does the decision put pressure on further investment in American nuclear facilities, it also runs counter to internationally accepted nuclear liability standards.[218] Companies are unwilling to participate in the nuclear market in countries where operator liability and minimum claim requirements do not exist.[219] For example, India has not followed the international nuclear liability regulations because its nuclear liability law provides, among other things, that operators may have a right of recourse against suppliers for nuclear damages.[220]

The lack of liability regulation conflicts with the international norm of channeling all nuclear responsibility to the operator. And not surprisingly, the potential for nuclear supplier liability in India has had the effect of discouraging many nuclear suppliers from engaging in the Indian nuclear market, inhibiting that market's growth.[221] Consequently, the Tenth Circuit's decision to permit certain state tort claims for "lesser nuclear occurrences" could well introduce a similar market-dampening effect into the United States that India experienced.[222] It unleashes potentially significant and uncertain liability from the constraints of the federal statute designed to curb it, discouraging domestic and foreign actors from participating in the market. In the process, the United States "could lose considerable influence over standards governing safety and waste management" and even a seat at the nuclear nonproliferation discussion table.[223] The world may be unwilling to move toward potentially safer designs. In addition to steering the private sector away from nuclear investment, the *Cook* decision widens the judicial door for more litigation.[224] Because of this newly created framework, the size of the verdict, and future interpretations of the PAA's preemptive effect (or lack thereof), legal analysis moving forward should distinguish *Cook*, and look to redefine the criteria of the PAA in line with international compensation conventions.

### D. Silver Lining: Judicial Catastrophe Stimulates PAA Amendment

The *Cook* decision represents a significant departure from existing case law, which holds that allegations even potentially falling under the PAA preempted all state law claims based on harm allegedly caused by exposure to or contamination from radioactive materials.[225] One positive aspect is that while the Tenth Circuit decision in *Cook* is preempted by federal law and generates grave consequences for the nuclear energy industry, it may ultimately stimulate an additional amendment to the PAA, as a means to regulate coverage of an industry that is rapidly modernizing. An amendment to the technical definitions and criteria within the PAA could ensure that a decision like *Cook* does not occur in the future. In amending the PAA,[226] Congress was well aware that the PAA compensation system must operate as a consistent part of a larger federal framework governing the safe use of nuclear energy.[227] Congress knew that "[n]umerous federal questions would necessarily arise in the course of litigation under this Act, and questions must be resolved consistently with the pervasive federal scheme."[228]

The definition of a "nuclear incident," as originally promulgated in the AEA, needs to be updated to conform to the related definition of "nuclear damage" in the Convention on Supplementary Compensation (CSC).[229] That way, when there is a nuclear incident at a plant, a community may receive federal funds for the harm because the federal liability will cover even a nuclear occurrence, which is less than an incident. Further, Congress should adopt the report language clarifying that a "nuclear incident" under the framework of the PAA covers any release of radioactivity in excess of regulatory limits. Adopting a federal incident standard as the liability action standard of care harmonizes federal preemption with precedent. Ultimately, Congress should amend the PAA to completely preempt state law causes of action, but also to clarify that public liability under the PAA should apply to lesser "nuclear occurrences." Such an amendment would close the loophole illustrated in *Cook* and help the PAA better achieve its goals.[230] Adhering to the technical criteria of the CSC will strengthen United States nuclear safety credibility domestically and internationally.

The defendant's duty is to comply with the federal incident definition standards through which the complete federal preemption of nuclear safety is effectuated.[231] If the defining language and compensable criteria modifies in parallel fashion with the industry's innovation, Congress's scheme to provide coverage to the nuclear community will remain intact.

## Conclusion

Given the denial of certiorari, the Tenth Circuit decision expands the scope of liability for nuclear power defendants in PAA cases, where the criteria for PAA coverage is not met, and allows plaintiffs to prevail under state tort law. However, the Tenth Circuit should have found plaintiff's claims preempted by federal law for occupying the field of safety compensation and frustrating the federal purpose. And while the decision fosters an array of negative impacts to the nuclear industry, it precipitates

the need to address the technical definitions and criteria of the Price-Anderson Act. Upon amending the definition of a "nuclear incident," pursuant to the language in the Convention of Supplementing Compensation, the PAA will resume the all-encompassing role that Congress intended and prevent future judicial reliance on *Cook*.

## ENDNOTES

[1] *See generally* David Brown, *Nuclear Power is Safest Way to Make Electricity, According to Study*, WASH. POST (Apr. 2, 2011), https://www.washingtonpost.com/national/nuclear-power-is-safest-way-to-make-electricity-according-to-2007-study/2011/03/22/AFQUbyQC_story.html?utm_term=.abb40f207826 (explaining that nuclear power is safer and more reliable than other forms of energy production and the danger of catastrophe is overstated).

[2] *Nuclear in the Energy Mix*, NUCLEAR ENERGY INST., https://www.nei.org/fundamentals/nuclear-in-the-energy-mix (last visited Apr. 6, 2018).

[3] *See also U.S. Nuclear Power Policy,* WORLD NUCLEAR ASS'N (Feb. 2018), http://www.world-nuclear.org/information-library/country-profiles/countries-t-z/usa-nuclear-power-policy.aspx (outlining how the United States government has supported nuclear energy since the late 1990s).

[4] *See* John Aguilar, *Payouts to Property Owners in Long-Running Rocky Flats Suit Should Start in 2017*, DENVER POST (Aug. 8, 2016, 6:00 PM), http://www.denverpost.com/2016/08/08/rocky-flats-payout-property-owners/ (noting the site occupies 6,500 acres of land).

[5] *Dow Chemical-Rockwell's Plutonium Nuisance & Price-Anderson Flats*, MINING AWARENESS (June 24, 2015), https://miningawareness.wordpress.com/2015/06/24/dow-chemical-rockwells-plutonium-nuisance-price-anderson-rocky-flats/.

[6] Cook v. Rockwell Int'l Corp., 618 F.3d 1127, 1131 (10th Cir. 2010).

[7] *See* John McGahren, *Implications of Cook v. Rockwell: Tenth Circuit Finds Price-Anderson Act Does Not Preempt Nuisance Claim*, KEY DEVELOPMENTS IN ENVIRONMENTAL LAW 81, 81-82 (Stanley D. Berger ed., 2015), *available at* https://www.morganlewis.com/-/media/files/publication/outside-publication/chapter/chapter-6-key-developments-environmental-law-2015.ashx (explaining that evidence of pollution came out during litigation).

[8] *Cook*, 618 F.3d at 1133.

[9] Cook v. Rockwell Int'l Corp., 151 F.R.D. 378, 380 (D. Colo. 1993).

[10] *See id.* at 382 (evidencing that the plaintiffs specified plutonium and volatile organic compounds in their lawsuit).

[11] U.S. DEP'T OF ENERGY, REPORT TO CONGRESS ON THE PRICE-ANDERSON ACT 1 (1999), https://energy.gov/sites/prod/files/gcprod/documents/paa-rep.pdf [hereinafter U.S. DEP'T OF ENERGY REPORT].

[12] *Id.*

[13] *See generally* Duke Power Co. v. Carolina Envtl. Study Grp., 438 U.S. 59, 64-69 (1978) (finding that the Act survived a constitutional challenge in the Supreme Court).

[14] Cook v. Rockwell Int'l Corp., 790 F.3d 1088, 1090-91 (10th Cir. 2015).

[15] *Id.* at 1096.

[16] *See* McGahren, *supra* note 7 at 82-83 (explaining the judicial process that led to this decision).

[17] *Id.*

[18] *See infra* Part III.A.3 (analyzing the potential impact of the Tenth Circuit's decision in *Cook*).

[19] *See infra* notes 217–227 and accompanying text (explaining the negative effect lesser claims have on nuclear energy investment, innovation and production).

[20] *See* Petition for Writ of Certiorari at 2-3, Dow Chem. Co. v. Cook, 790 F.3d 1088 (10th Cir. 2015) (No. 15-791).

[21] *See infra* notes 215-216 and accompanying text (highlighting why nuclear plant defendants will be incentivized to submit to PAA judgements).

[22] *See infra* Part III.A.1 (discussing the Tenth Circuit's departure from the reasoning of other circuits).

[23] Mark Zepezauer, "Take the Rich Off Welfare," AZ: Odonian Press, (1996), p. 86 (looking at how the damage at Chernobyl cost the Former Soviet Union $358 billion in liability). U.S. NUCLEAR REG. COMM'N, BACKGROUNDER ON NUCLEAR INSURANCE AND DISASTER RELIEF (Jan. 2018), https://www.nrc.gov/docs/ML0327/ML032730606.pdf [hereinafter NUCLEAR INSURANCE AND DISASTER RELIEF].

[24] *See* Petition for Writ of Certiorari at 5, *Dow Chem. Co.*, 790 F.3d at 1088 (No. 15-791).

[25] *Liability for Nuclear Damage*, WORLD NUCLEAR ASS'N, http://www.world-nuclear.org/information-library/safety-and-security/safety-of-plants/liability-for-nuclear-damage.aspx (last visited Apr. 6, 2018).

[26] *See* Mark King, *Federal Preemption of the State Regulation of Nuclear Power: State Law Strikes Back – Silkwood v. Kerr-McGee Corporation*, 60 CHI.-KENT L. REV. 989, 995 (1984).

[27] 790 F.3d 1088, 1090 (10th Cir. 2015).

[28] *See* discussion *infra* Part III.A.2 (analyzing how the Tenth Circuit's holding departed from Congressional intent).

[29] *See infra* Part II (providing background on the PAA); *see also* 42 U.S.C. § 2210(n) (2012) (mandating the normally available defenses be waived); § 2210(s) (describing the limits of punitive damages in an action arising out of an extraordinary nuclear occurrence (ENO) mandate); *Cook*, 790 F.3d at 1095 (holding that the defendants waived preemption as an affirmative defense and that this sufficed as justification to disregard preemption).

[30] *See infra* Part III.A (analyzing the Tenth Circuit's decision in *Cook*).

[31] *See* infra Part III.D (acknowledging the potential for a future PAA amendment); *see also* International Atomic Energy Agency, Convention on Supplementary Compensation for Nuclear Damage, July 22, 1998, I.A.E.A. INFCIRC/567 (containing internationally accepted definitions to technical nuclear terms in the Annex and establishing that the Annex to the Convention reflects key principles that nuclear liability laws should contain).

[32] Part III also asserts that Congress should adopt the report language clarifying that a nuclear incident, under the PAA, covers any release of radioactivity in excess of regulatory limits, and those are the only ones compensable since the Nuclear Regulatory Commission remains in the drafting phase of a new report to Congress on the proposed extension to the PAA. *See infra* Part III.D.

[33] *See generally* Bill Dedman, *Nuclear Neighbors: Population Rises Near US Reactors*, NBC NEWS (Apr. 14, 2011, 7:00 PM ET), http://www.nbcnews.com/id/42555888/ns/us_news-life/t/nuclear-neighbors-population-rises-near-us-reactors/#.WYnqcNPytTY (providing an interactive map of where active nuclear plants sit in relation to where a person lives); Joseph Stromberg, *Do You Live Within 50 Miles of a Nuclear Power Plant?*, SMITHSONIAN.COM (Mar. 13, 2014), http://www.smithsonianmag.com/science-nature/do-you-live-within-50-miles-nuclear-power-plant-180950072/ (providing an interactive map of where active nuclear plants sit in relation to where a person lives).

[34] *See* Stromberg, *supra* note 32.

[35] *See generally* Arnold W. Reitze, Jr. & Deborah J. Rowe, *The Price-Anderson Act—Limited Liability for the Nuclear Industry*, 17 E.L.R. 10,185, 10,186 (1987) (explaining that the legislative intent of PAA to address issues of safety for citizens living near nuclear power plants); 42 U.S.C. § 2210-14 (2012).

[36] U.S. DEP'T OF ENERGY, THE HISTORY OF NUCLEAR ENERGY, https://energy.gov/sites/prod/files/The%20History%20of%20Nuclear%20Energy_0.pdf (last visited Mar. 28, 2018) (discussing nuclear energy as both an affordable and a non-fossil fuel source).

[37] *See id.* (predicting that the nuclear industry would not continue to grow any bigger due to public sentiment and economics).

[38] *Compare What Are Nuclear Wastes and How Are They Managed?*, WORLD NUCLEAR ASS'N, http://www.world-nuclear.org/nuclear-basics/what-are-nuclear-wastes.aspx (last visited Mar. 19, 2018) (providing information about the impact of nuclear wastes) *with Natural Radiation in Wastes From Coal-Fired Power Plants*, U.S. EPA, https://www3.epa.gov/radtown/coal-fired-power-plants.html (last visited Mar. 19, 2018) (providing information about the impact of coal wastes).

[39] *See* NUCLEAR INSURANCE AND DISASTER RELIEF, *supra* note 22.

[40] *See generally* 42 U.S.C. § 2210 (2012) (outlining the indemnification and limitation of liability).

[41] *See* S. Rep. No. 100-70, at 122 (1988) (striking a balance of providing compensation to injured citizens while also maintaining funds sufficient to sustain and develop the industry).

*continued on page 38*